

GEO4NIEM: RFI Demo

Transcript

Narrator:

In this video, we're going to show the Geo4NIEM RFI demonstration from the Carbon Project. Our scenario is a powerful storm has hit the eastern United States. Our demo area is Staten Island, just south of New York City. In this scenario, NIEM XML from multiple agencies is going to be turned into NIEM GML, or Geography Markup Language. We're going to use that NIEM GML to ask and answer a series of questions. Such as what vessels are in the area that can supply fuel to Staten Island, and where are they? We're also going to show a mobile update using NIEM GML from simulated field operators on Staten Island.

Our architecture for today's demo consists of a RFI Loader, which converts NIEM XML into NIEM GML through a web feature service transaction. We also have a Carbon Project WFS and an OGC Client called "Gaia" from the Carbon Project, which acts as NIEM GML.

A key component today is the NIEM RFI Loader. In today's demo, this is going to be functioning as a prototype client and service but it can also be readily deployed as an online service.

Another key component is the Carbon WFS Plus+. This is where the NIEM GML will be stored for access.

For the mobile update we are going to be using an Android application from the Carbon Project to put in update points through a mobile management service called CarbonCloud Sync, which will then put them into the carbon project web feature service.

So at this point, we are going to be assuming the role of a simulated fusion center that is getting a number of different NIEM IEPDs. So let's go ahead and load some sample NIEM RFIs. Just go ahead and select one, validate it, and publish it to the WFS. That was a point location. Let's try a polygon. Now these are both loaded on the Carbon Project cloud. We're going to go ahead and refresh "Gaia." There are these two, the point and the polygon.

Now this is what the NIEM XML looked like when it went into the system. It started out as regular RFI XML. It gets turned into NIEM GML. Which I will bring up here. And there is no data loss; you can see the location and the rest of the information down there at the bottom of the screen. So NIEM XML has now been converted to NIEM GML.

Let's go ahead and add more NIEM XML RFIs, perhaps a request for locations of docks. Validate and publish that. Let's go ahead and publish a request for locations of vessels. And again we can refresh our screens and check out these RFIs in "Gaia," and they are displayed on the screen here.

We can also receive mobile updates from the field, and in this portion of the demo we are going to be using a mobile application from the Carbon Project functioning on an Android mobile phone. So let's just go ahead and show you the basic sequence on the screen then we will be putting in some live points.

So the user can just touch plus on the app. select "Draw a geometry." Touch the screen, which I am doing off camera. That point is then added to the WFS. Let's go ahead and check that out, in "Gaia" as well. And there is location right there. If we take a look at this, we can see that the NIEM structure is maintained again and the request here is "provide a location update on fuel vessels."

So in other demonstrations, you are going to see how those vessels can be identified and what can be returned to the NIEM RFI requester is a GML feature collection. Which we will go ahead and bring up those points, symbolize them. This is NIEM data in a separate GML schema. And you can see there that the tanker Zanthos is located just off of Staten Island. Thank you very much.